

## NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

### F A C T      S H E E T (pursuant to NAC 445A.236)

#### Permittee Name

Dayton Utilities Company\Lyon County  
Rolling "A" Water Reclamation Facility  
P. O. Box 1699  
Dayton, Nevada 89403

#### Permit Number

NEV2000500

#### Location

The Rolling "A" Water Reclamation Facility is located on the Rolling "A" Ranch south of U.S. Highway 50 and Ft. Churchill Road in Dayton Valley, east of Dayton, Nevada in the NW1/4 of the SW1/4 Section 34, Township T. 17N., Range R. 22E. MDB&M. Latitude: 39°17'34"N, Longitude: 119°30'13"W.

#### General

This permit modification is being made to add an interim primary lined pond that will treat sewage until or before September 30, 2001 when the Rolling A package treatment plant described below is constructed and operational. The 160' by 360' 1.32 acre pond will be aerated to control odors. Disposal will be by evaporation. Four additional monitoring wells will be installed around the pond perimeter to monitor water quality.

Potential environmental impacts resulting from the operation of the interim lined primary pond are not anticipated due to the brief time of its planned operation and its being lined.

The Rolling "A" Water Reclamation Facility (RAWRF) is designed to utilize an extended aeration process with biological nutrient removal to treat domestic sewage originating from residential dwellings in the Dayton Valley service area. The treated effluent will be disinfected following treatment to achieve effluent standards, before disposal in rapid infiltration basins.

The proposed plant is designed to treat and discharge an average of 0.058 million gallons per day (MGD) of treated wastewater. Any discharge in excess of this limit shall be considered a violation of the permit.

Groundwater monitoring is conducted Quarterly to monitor for any possible impacts. Potential environmental impacts resulting from the operation of this treatment plant include the discharge of elevated levels of chlorides, and dissolved solids to groundwaters of the State. Since the plant is designed to denitrify and disinfect, there should be no impacts to groundwater from nitrate or pathogens.

To reduce the potential for impact, the permittee will perform monthly sampling of the RAWRF effluent to ensure concentrations of the listed parameters meet the required effluent standards. The permittee is also required to maintain records, document and report the following:

- volume of sludge stored in on-site facilities;
- volume of sludge landfilled or disposed in other approved sites

These records will be available for inspection by the Division at any time.

#### **Treatment Process:**

Domestic sewage (raw wastewater) makes up the waste stream which will be pumped into a primary sedimentation tank where primary digestion and separation of sewage will take place. Following this tank, the wastewater flows by gravity through extended aeration tanks where the activated sludge process will treat the wastewater using biological nutrient removal. After the aeration process is completed, the wastewater is discharged to a settling tank where the activated sludge will settle out and will be directed to the aerobic sludge digester or other process locations if needed. The settling tank provides clarification of the wastewater by gravity separation. The wastestream is next discharged by gravity into a tank where the disinfection process will occur. The fully treated and disinfected effluent will then be discharged into one of two rapid infiltration basins for disposal via evaporation/percolation.

During an approximate one-year interim period of time, until the package wastewater treatment plant is constructed and operational, the domestic sewage will be pumped into a lined Primary treatment pond which will be aerated to control odors. Aerators will be installed as soon as the pond is of sufficient depth to accommodate the aerators. The sewage will undergo Primary treatment with solids settling and evaporation of effluent.

#### **Flow**

The permitted 30-Day average daily flow has been set at 0.058 MGD.

### Receiving Water Characteristics

Depth to groundwater near the plant site is approximately 9 - 10 feet below ground surface and is potable.

Groundwater samples will be collected and analyzed quarterly from a total of five downgradient monitoring wells for the presence of nitrate, total Nitrogen, chlorides and total dissolved solids.

### Procedures for Public Comment

The Notice of the Division's intent to modify this permit authorizing the facility to discharge to groundwaters of the State of Nevada subject to the conditions contained within the permit, is being sent to the **Mason Valley News and the Nevada Appeal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons.

The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determined to be appropriate. All public hearings must be conducted to accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

### Proposed Determination

The Division has made the tentative determination to modify the proposed permit.

Proposed Effluent Limitations, Schedule of Compliance and Special Conditions

<u>PARAMETERS</u>	<u>DISCHARGE LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u>	
	<u>30-day Ave.</u>	<u>Daily Max</u>	<u>Measurement</u>	<u>Frequency</u>
FLOW:				
Influent:	Monitor & Report	Monitor & Report	Continuous	
Effluent:	Monitor & Report	0.058 MGD	Continuous	
BOD <sub>5</sub> :				
Influent:	Monitor & Report	Monitor & Report	Monthly	
Effluent:	30 mg/l	45 mg/l	Monthly	
Pond:	Monitor & Report	Monitor & Report	Monthly	
TSS:				
Influent:	Monitor & Report	Monitor & Report	Monthly	
Effluent:	30 mg/l	45 mg/l	Monthly	
Pond:	Monitor & Report	Monitor & Report	Monthly	
Effluent: Pond and Plant discharge				
Nitrate as N: M & R	M & R		Monthly	
Nitrogen as N: 10 mg/l*	Monitor & Report		Monthly	
Ammonia Nitrogen as N:	Monitor & Report		Monthly	
pH: Between 6.0 and 9.0 SU			Monthly	
Fecal Coliform:*2.2CFU/100 ml	23CFU/100 ml		Monthly	
Chlorine Residual:*	Monitor & Report		Monthly	
* Does not apply to pond				

M & R = Monitor and Report; MGD = million gallons per day; ml = milliliters; mg/l = milligrams per liter; CFU = colony forming units

**Monitoring Well Sampling Requirements**

**MONITORING WELL #1-5**

<u>PARAMETERS</u>	<u>Frequency</u>
TOTAL DISSOLVED SOLIDS:	Monitor and Report Quarterly
NITRATE as N: See Part I.A.14, 10 mg/l	Quarterly
TOTAL NITROGEN as N:	Monitor and Report Quarterly
CHLORIDE:	Monitor and Report Quarterly
GROUNDWATER ELEVATION:	Monitor and Report Quarterly
DEPTH TO GROUNDWATER:	Monitor and Report Quarterly

Schedule of Compliance, Special conditions:

1. An Operations and Maintenance Manual (O & M) shall be submitted no later than 6 months after plant start up. It shall contain a Sludge Management Plan and a Groundwater Monitoring Plan. An interim O & M Manual shall be submitted for the primary pond

Rolling "A" WRF  
FACT SHEET  
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system operation within 30 days of permit modification.

**There are no special conditions.**

**Rationale for Permit Requirements**

Effluent monitoring is required to assess the level of treatment being provided and to determine when design capacity is being approached.

Groundwater monitoring is required to ensure that operations of the facility do not degrade groundwaters of the State.

Prepared by: Icyl C. Mulligan  
February, 2000  
Modified August, 2000

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